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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/721,176      | 11/26/2003  | Jae Hoon Ha          | K-0577              | 6609             |

34610 7590  
FLESHNER & KIM, LLP  
P.O. BOX 221200  
CHANTILLY, VA 20153

01/17/2007

|                  |              |
|------------------|--------------|
| EXAMINER         |              |
| HUSBAND, SARAH E |              |
| ART UNIT         | PAPER NUMBER |
| 1746             |              |

| SHORTENED STATUTORY PERIOD OF RESPONSE | MAIL DATE  | DELIVERY MODE |
|----------------------------------------|------------|---------------|
| 3 MONTHS                               | 01/17/2007 | PAPER         |

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

|                              |                              |                     |
|------------------------------|------------------------------|---------------------|
| <b>Office Action Summary</b> | <b>Application No.</b>       | <b>Applicant(s)</b> |
|                              | 10/721,176                   | HA, JAE HOON        |
|                              | Examiner<br>Sarah E. Husband | Art Unit<br>1746    |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of the communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on \_\_\_\_\_.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-11 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 26 November 2003 is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
  - 1) Certified copies of the priority documents have been received.
  - 2) Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)  
 Paper No(s)/Mail Date \_\_\_\_\_
- 4) Interview Summary (PTO-413)  
 Paper No(s)/Mail Date \_\_\_\_\_
- 5) Notice of Informal Patent Application
- 6) Other: \_\_\_\_\_

## DETAILED ACTION

### *Specification*

The disclosure is objected to because of the following informalities: paragraph 17, line 1, states “solenoid valves 6a” and should be “solenoid valves 36a”; paragraph 51, line 4 and claims 3 and 9 recite “brought contact”; and paragraph 55 states “sensing unit 66b” and would be more appropriately described as “sensing unit 66”.

Appropriate correction is required.

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

### *Claim Rejections - 35 USC § 112*

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 6-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 6 states that a button is brought [into] contact with the outer circumference of the cam. However, it appears that the button is not contacting the cam from the figures. Appropriate clarification is required.

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless – (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by Fumagalli (EP 0795292).

Fumagalli discloses a dishwasher having a washing chamber (1), top and bottom nozzles (12, 11), a sump (3), pump (4), supply pipe, upper and lower pipes connected to the supply pipe to deliver to top and bottom nozzles (55, 56), a valve (diverter, 6) rotatably installed at the connecting portion between the supply pipe and upper and lower pipes and a motor (7). Fumagalli further discloses the valve has a semi-cylindrical shape with upper and lower ends coupled between the supply pipe (which extends from the pump) and the upper and lower pipes (Fig. 1).

#### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over McDonald (US Patent No. 2,597,359).

McDonald discloses a dishwasher having top and bottom nozzles, sump, pump, supply pipe and upper and lower pipes (Fig. 1, col. 3). McDonald also discloses a valve (52) and driving means (56, 54, 82). McDonald further discloses the valve is semi cylindrical (Fig.

3) and the motor rotates a rotational shaft (78) connected to the valve, by various electrical functions and connectors (Fig. 5, col. 5, line 60-col. 6, line 30). McDonald further shows a cam (94) which rotates with the valve (col. 6) and having sections of different radius (see Fig. 5) and a sensing unit (96) brought into contact with the cam. Although McDonald doesn't disclose a step motor, a 2rpm motor is disclosed, which have been known to be step motors and also does have a specific rotation, which would suggest a step motor. McDonald also discloses a button (96, 86), which is connected to a switching unit (129) and stops the motor (col. 5-6). The cam radii disclosed by McDonald would also cause the button to compress and restore.

#### *Conclusion*

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art not referred to are Walker (US 2629390), Loeb (US 2395747), Burt-Wells (US 2443414), and Merveles (US 1581134), who disclose valve and cam mechanisms.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sarah E. Husband whose telephone number is (571) 272-8387. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael E. Barr can be reached on (571) 272-1414. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SEH



MICHAEL BARR  
SUPERVISORY PATENT EXAMINER